AMENDMENT

Please enter the following amendments. Deleted subject matter is indicated with strikethrough text and added subject matter is indicated with underlined text. The current listing of Claims supersedes all previous versions.

In the Claims

1. (Currently Amended) Data registration device for data processing systems, particularly for the determination of multi-dimensional coordinates created by means of exertion of displacement and/or rotational forces, comprising

   - a stand;
   - a retainer element mounted in the stand such that the retainer element may be displaced in at least two mutually perpendicular directions;
   - an operating ball that may be rotated through three axes but not displaced within the retainer element;
   - at least one sensor to determine the displacement of the retainer element and the rotation of the operating ball;
   - an interface unit that transmits data delivered from the sensor[[s]] to a connected data processing system;

   wherein the operating ball is mounted within the retaining element such that it may be grasped on two at least partially diametrically opposed sphere segment sections, and wherein the operating ball and retaining element are displaceable, and wherein the displacement forces and the rotation forces with respect to all axes may be exerted by means of the operating ball.

2. (Previously presented) Data registration device per Claim 1, wherein the retainer element may be simultaneously displaced in the direction of several displacement axes, and wherein the operating ball may be rotated simultaneously about several axes.

3. (Previously presented) Data registration device per Claim 1 wherein the retainer element possesses a frame-shaped ball mount that surrounds the operating ball along a great circle in a surrounded section greater than π.

4. (Previously presented) Data registration device per Claim 1 wherein the retainer element includes a key-shaped ball mount.

5. (Previously presented) Data registration device per Claim 4, wherein the operating ball is mounted magnetically within the key-shaped ball mount, wherein the operating ball is hollow and is made of a non-magnetic material, wherein a magnetizable retaining ball is mounted within the operating ball so that it may move freely, and wherein a magnetic field source positioned outside the operating ball attracts the retaining ball into the key-shaped ball mount, and wherein the operating ball is mounted in the ball mount such that it may rotate.

6. (Previously presented) Data registration device per Claim 3, wherein the retainer element includes the ball mount, an inner frame, and an outer frame, wherein the ball mount is mounted within the inner frame which itself is mounted in the outer frame such as to be displaceable along a first direction, which in turn is mounted in the stand such as to be displaceable along a second direction perpendicular to the first direction, and wherein at least one of the components of the retainer element is displaceable along a third direction that is perpendicular to the first and the second direction.

7. (Previously presented) Data registration device per Claim 1, further comprising return elements that return the retainer element or its components to a rest position when no displacement force is being exerted.

8. (Previously presented) Data registration device per Claim 1, wherein displacement of the retainer element is registered by path, force, or acceleration sensors.

9. (Previously presented) Data registration device per Claim 1, further comprising at least two motion sensors positioned within the retainer element that register the rotation of the operating ball about three mutually-perpendicular axes.

10. (Previously presented) Data registration device per Claim 9, wherein the motion sensors are optical sensors that sample a surface of the operating ball and its rotation.

11. (Previously presented) Data registration device per Claim 1, further comprising additional actuators that oppose or reinforce a varying force in reaction to control signals from the user resulting from displacement of the retainer element or rotation of the operating ball.

12. (Previously presented) Data registration device per Claim 1, further comprising additional switches that transmit additional control signals to the data processing system upon actuation.